

## ABSTRACT

The invention concerns the use of duplex oligonucleotides about 25 to 30 base pairs to introduce site specific genetic alterations in plant cells. The oligonucleotides can be delivered by mechanical (biolistic) systems or by electroporation of plant protoplasts.

Thereafter plants having the genetic alteration can be generated from the altered cells. In specific embodiments the invention concerns alteration in the gene that encode acid invertase, UDP-glucose pyrophosphorylase, polyphenol oxidase, O-methyl transferase, cinnamyl alcohol dehydrogenase, ACC synthase and ACC oxidase or *etr-1* or a homolog of *etr-1*, and plants having isolated point mutations in such genes.

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